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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,209	11/17/2003	Yuki Hongo	Q78389	2460

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EXAMINER

NAKARANI, DHIRAJLAL S

ART UNIT PAPER NUMBER

1773

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/713,209

Applicant(s)

HONGO ET AL.

Examiner

D. S. Nakarani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 09, 2006 has been entered.
2. The disclosure is objected to because of the following informalities: Page 20, line 19, the word "polyester" should read --polyester--. Applicants are requested to review entire specification carefully for additional errors.  
  
Appropriate correction is required.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-4 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Nishida et al (U. S. Patent Application Publication U. S. 2002/0127408 A1) in view of Kumazawa et al (U. S. Patent 5,472,798) for the reasons of record set forth in paragraph 5 of the Office Action mailed July 19, 2005 (Paper Number 20050623). In addition, Nishida et al disclose a composition of high refractive index layer comprising 20 to 60 vol% of Titanium dioxide of the total volume of the particle of titanium dioxide

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and the particles of indium doped tin oxide and the volume percentage of the metal oxide particles to the total volume of the metal oxide particles and the synthetic resins in the range of, preferably, 30 to 80 vol% (paragraphs 0018 and 0020). When disclosed volume percentages converted into mass percentages deemed to encompass claimed ranges of mass percentages unless shown otherwise. Nishida et al disclose ITO and ATO as being equivalent (Claim 2). Therefore it would have been obvious to a person of ordinary skill in the art at the time of this invention made to use either ITO or ATO at same concentration for forming high refractive index layer. Furthermore, conversion of volume to mass percentages or mass to volume percentages is within ordinary skill in the art. Also optimizing composition of high and/or low refractive index layer is within skill of the art for the desired refractive indexes.

5. Applicant's arguments filed June 9, 2006 have been fully considered but they are not persuasive. In reference to rejection of claims 1-4 under 35 U.S.C. 103(a) as being unpatentable over Nishida et al (U. S. Patent Application Publication U. S. 2002/0127408 A1) in view of Kumazawa et al (U. S. Patent 5,472,798), applicants submitted Declaration of Yuki Hongo under 37 C. F. R. §1.132 on June 09, 2006 to show that an ATO containing composition for the high refractive index layer provides superior adhesion between the high refractive index layer and the low refractive index layer and superior transmittance as compared to an ITO containing composition for the high refractive index layer.

These arguments are unpersuasive because the Declaration of Yuki Hongo filed June 09, 2006 does not compare the composition for the high refractive index layer containing at equal concentration of ATO and of ITO. The curable composition 6 for forming high refractive index layer contains 75 wt% ATO and 25 wt% polyester acrylate (See page 20, lines 15-27 of the present specification) while the curable composition Y in the Declaration for forming high refractive index layer contains 90 wt% ITO and 10 wt% polyester acrylate. Furthermore in Examples 1-7, the high refractive index layer contains urethane acrylate and not polyester acrylate. Only comparative Example 3, the high refractive index layer contains polyester acrylate at concentration of 25 wt%. Therefore the declaration does not show unexpected results as argued and does not overcome the rejection of record.

The Examiner has calculated above recited percentages as follow:

Composition 6 of the present specification:

Isobutanol: 16900 parts by mass (i.e. weight)

Polyester acrylate: 100 parts

ATO disp.(10 wt% solid:

ATO: 300 parts

Isobutanol:2700 parts): 3000 parts

Total: 20,000 parts

Total solid: 2 wt% (i.e.  $0.02 \times 20000 = 400$  parts containing 100 parts polyester acrylate and 300 parts ATO giving 25 wt% polyester acrylate and 75 wt% ATO).

Composition Y in the Declaration:

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Isobutanol: 17650 parts by mass (i.e. weight)

Polyester acrylate: 100 parts

ITO disp.(40 wt% solid:

ITO: 900 parts

Isobutanol:1350 parts): 2250 parts

Total: 20,000 parts

Total solid: 5 wt% (i.e.  $0.05 \times 20000 = 1000$  parts containing 100 parts polyester acrylate and 900 parts ITO giving 10 wt% polyester acrylate and 90 wt% ITO).

6. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. S. Nakarani whose telephone number is (571) 272-1512. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**D. S. Nakarani**  
**Primary Examiner**  
**Art Unit 1773**

DSN  
August 6, 2006.